

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Notice of Violation Under
Section 113(a)(1) of the Clean Air Act
to U.S. Steel

DATE:

FROM: Bernard E. Turlinski, Chief
Air Enforcement Branch (3AT20)

TO: Thomas J. Maslany, Director
Air, Radiation and Toxics Division (3AT00)

I. Recommended Action

Signature of the attached Notice of Violation (NOV) notifying U.S. Steel Corporation that EPA has found that U.S. Steel has violated a requirement of the Pennsylvania State Implementation Plan (SIP) under the federal Clean Air Act at U.S. Steel's Clairton Works plant located in Pennsylvania. The violations found involve venting the unburned raw coke oven gas to the open air and extended flaring of the raw coke oven gas resulting in excessive emissions of H_2S and SO_2 , as well as other hazardous air pollutants associated with combustion of undesulfurized coke oven gas.

II. Location of Violator

Pittsburgh, Pennsylvania

III. Requirements Violated

III.1. The "National Emission Standards for Coke Oven Batteries"; final rule, 40 CFR Part 63, Subparts "A" and "L", established pursuant to section 112 of the CAA as amended November 15, 1990, provide, among other things, that

III.1.1. "Coke oven emissions shall not be vented to the atmosphere through bypass/bleeder stacks, except through the flare system..." [§63.307(a)(2)]

III.1.2. "Each flare shall have either a continuously operable pilot flame or an electronic igniter..."
[§63.307(b) (2)]

III.1.3. "Each flare ... shall be operated with no visible emissions ..., except for periods not to exceed a total of 5 minutes during any 2 consecutive hours."

[§63.307(c)]

III.2. The Pennsylvania SIP includes Article XX, Section 530 which provides, among other things, that "...no person shall operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air."

III.3. The Second Consent Decree (Civil Action Nos. 79-709, 91-329) entered in the United States District Court for the Western District of Pennsylvania provides, among other things, that

III.3.1. "...Defendant shall not emit any unburned coke oven gas into the open air..." (Section V.I.).

III.3.2. "Defendant shall operate and maintain the igniter system which it has installed at the Clairton Works to flare or combust all raw coke oven gas (vented), despite USX's best efforts to prevent such emissions, from the bleeder stacks..." (Section V.J.1.).

III.3.3. "Defendant shall not, at any of its coke oven batteries, flare, mix, or combust coke oven gas unless the concentration of sulfur compounds measured as H₂S in the gas..." is "...no greater than 40 grains per 100 dscf of coke oven gas produced by the Clairton Works..." (Sections V.J.2. and V.H.1.).

IV. Nature of Violations and Rationale for NOV

U.S. Steel Corporation operates a Clairton Works plant located near Pittsburgh, Pennsylvania ("Facility"). The Facility is equipped with coke oven batteries Nos. 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, and B. The Facility is also equipped with a by-product chemical recovery plant and a desulfurization plant consisting of vacuum carbonate, cyanide destruction, Claus 400, Claus 600, and Scott Units, as well as with auxiliary facilities.

On October 4, 1994, due to a cable fault at the Electric Distribution Center #1 at the Clairton Works plant, six Main Axis Compressors were temporarily lost resulting in a gas suction pressure drop. Subsequently, the flares were activated at all 12 batteries. The Battery #20 flare failed to ignite because the flare ignition system (pilot flame) was not operable. The inoperable condition of the ignition system was known to the plant personnel for some time before venting accident has occurred. Attempts by the plant personnel to re-light the pilot light before the time of the venting episode were unsuccessful.

The U.S. Steel Corporation is found to have been in violation of the provisions of the Coke Oven NESHAP (40 CFR Part 63), Article XX, Section 530, and the Second Consent Decree for venting the unburned raw coke oven gas into the open air for a duration of 120 minutes. The estimated quantity of H₂S released into the open air is about 1,200 lbs. Appreciable quantities of

other hazardous air pollutant normally presented in the raw coke oven gas were also released. The pilot flame design is being currently evaluated by U.S. Steel Corporation.

The U.S. Steel Corporation is also found to have been in violation of the provisions of the Article XX, Section 530, and the Second Consent Decree for an extended flaring of the raw coke oven gas at the remaining 11 batteries for a total of 910 minutes. The extended flaring resulted in excessive emissions of hazardous air pollutants associated with combustion of undesulfurized coke oven gas. (The data in paragraphs 8, 9, and 10 have been compiled from the "Notice of Breakdown of Equipment", Article XX - Section 202.C. of October 7, 1994.)

V. State/Local Agency Involvement

Several discussions were held with ACHD personnel (C. Goetz, W. Gilson, and W. Clark) on the subject matter. Mr. Goetz expressed an opinion that ACHD would be willing and able to handle this serious violation.

It should be noted, however, that

- a) enforcement of the Coke Oven NESHAP has not yet been delegated either to the State, or to the County. Region III is the sole agency responsible for the enforcement of the rule.
- b) the violations are substantial
- c) due to the County's quarterly enforcement programmatic limitation, an anticipated action by the County would not happen before February 1995.

Issuance of a NOV would be a clear indication to USX about the seriousness with which we view these violations. Although a NOV is not necessary for enforcement of NESHAP violations, it is a prerequisite to any enforcement action for violation of a SIP requirement. Therefore, issuance of a NOV would preserve our ability to pursue appropriate enforcement in the future, as warranted.

VI. Conclusion

EPA should proceed to issue the attached Notice of Violation to U.S. Steel at the earliest possible date.

Attachment